TABLE 21. Concentrations (in ug/g) of enriched elements in Battalina Creek, Belhaven, N.C.

ELEMENT	N	CONCENTRATION	MAXIMUM ENRICHMENT FACTOR
CRITICAL TRACE ELEMENTS:			
Cu	1	72.4	5.32
Ni	1	7.7	2.89
Cd	1	1.0	2.78
Mo	1	1.3	2.60
Zn	1	193.0	2.51
MAJOR ELEMENTS:			
Na	1	6076.75	2.14

Lower Pantego Creek

The Belhaven waterfront (Fig. 31) has 8 industrial NPDES permitted discharges into Pantego Creek with a total design flow of 125,200 gallons per day, mostly from seafood processing plants (permit numbers 7,8, 40, 69, 72, 116, 117and 120 in App. I). Elevated levels of nickel (4.62 X) and cobalt (2.41 X) occur in Pantego Creek in four and two surface samples, respectively (Table 22). The highest nickel enrichment occurs about 100 feet south of the Highway 92 bridge crossing Pantego Creek (Fig. 31). Nickel enrichment factors decrease (Fig. 32) in samples extending downstream from the bridge to the jettied harbor entrance with a nickel enrichment factor of 2.7 X. Cobalt enrichment follows a similar trend but is only enriched in two of the samples. Cores not enriched in nickel and cobalt are located in areas characterized by quartz (SiO_2) sand bottoms; these are chemically inert and not conducive to metal accumulation. A moderately strong positive correlation (0.86) exists between the percentage of clay and concentration of nickel and cobalt in this area, suggesting that distribution of these metals is partly controlled by sediment type.

TABLE 22. Average concentrations (ug/g) of enriched elements occurring in Pantego Creek, Belhaven, N.C.

ELEMENT	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	MAXIMUM ENRICHMENT FACTOR
CRITICAL TRACE ELEMENTS:						
Ni	4	9.62	1.84	8.1	12.3	4.62
Co	2	12.4	1.41	11.4	13.4	2.41